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AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
WASHINGTON 25, D. C.

In Cooperation with State, Federal and other Agencies

COTTON INSECT CONDITIONS FOR WEEK ENDING AUGUST 24, 1946
(Thirteenth Cotton Insect Survey Report for 1946)

The boll weevil has reached its peak in most areas and is now causing serious damage to green bolls. It is spreading in the northern areas and the infestations are now increasing rapidly in Virginia, North Carolina, Tennessee, and northern Arkansas. Much cotton can still be saved by dusting with calcium arsenate to protect the green bolls.

Cotton leafworms are widespread over Texas, Oklahoma, Louisiana, Arkansas and Mississippi and arsenicals are being applied where conditions justify their use to protect the crop. They are spreading in Missouri.

Bollworms are causing damage in most of the states, but especially in Texas, Oklahoma, Louisiana, Arkansas and Mississippi.

Cooperators are urged to send in reports in regard to cotton insect conditions, especially from areas where there is still opportunity of protecting part of the crop from insects by the proper and timely application of insecticides.

During the week no reports were received on shortages of insecticides, other than nicotine, needed for cotton insect control. There is still need for insecticides in the northern cotton-growing areas. As the infestations increase demands for insecticides may come from these areas.

BOLL WEEVIL

TEXAS: Boll weevils are still causing some damage in the eastern part of the State, but weather conditions have been favorable for their control. Most fields have passed the stage for making square infestation records. Weevils are now migrating into the few fields of cotton that remain green and fruiting.

OKLAHOMA: Boll weevil infestation continues at a high level, although hot weather has slowed down weevil activity. The average infestation in 169 fields in 18 counties was 47%. The infestation varied from 2% in some dusted fields to 100% in some undusted fields. Cotton is maturing rapidly and there are very few squares remaining in many of the fields. The reports show the value of dusting with calcium arsenate, as the average infestation in the dusted fields is much lower than in the undusted fields. In Jefferson County the average infestation in the dusted fields was 8% as compared to 44% in the undusted fields. In Love County the averages were 18% for dusted fields and 58% for undusted. In Johnston County the averages were 32% and 58%; in Marshall County 40% and 55%; and in Murray County 28% and 78%.

ARKANSAS: Boll weevils continue serious in most cotton areas of the State. The average infestation in 107 fields examined was 44%. No weevils were found in 23% of the fields. In 1% of the fields the infestation was less than 10%; in 9% of the fields it was from 10 to 25%; in 24% of the fields it was from 25 to 50%; and in 43% of the fields more than 50% of the squares were punctured. The heaviest infestations were reported in southeastern Arkansas.

The northeastern portion of the State is almost free of weevils. The poison supplies were reported to be better than the previous week.

MISSISSIPPI: Coahoma and Tunica Counties in the northern part of the Delta are the only counties in the State with practically no boll weevil damage. Six of the 10 fields examined in Tunica County were still free of weevils and no field had more than 4% punctured squares. Weevils were found in all of the 10 fields examined in Coahoma County, but the highest infestation was 16% punctured squares. Quitman County ranks third in comparative freedom from boll weevils, as one of the 8 fields examined was free of weevils; 3 fields had less than 10% punctured squares; and the highest infestation reported was 58% punctured squares. In Tallahatchie County the boll weevil damage is light, as the highest infestation found was 34% punctured squares, although weevils were found in all of the 8 fields examined. Tate County is also lightly infested, as one of the 11 fields examined had no weevils and only one field had more than 40% punctured squares. All of the 48 fields examined in Bolivar, Leflore, Sunflower and Quitman Counties in the Middle Delta had boll weevils, and only one field (in Bolivar County) had less than 10% of the squares punctured. In 8 fields the infestations were less than 25% punctured squares; in 17 fields the infestations ranged from 25 to 50%; and in 22 fields more than 50% of the squares were punctured.

All of the 75 fields examined in the 6 counties along the Tennessee Border had boll weevils, except one field in De Soto County in the northwestern corner of the State. Only 8 of the fields had less than 10% of the squares punctured. In 20 fields the infestations ranged from 10 to 25% punctured squares; in 28 fields the range was between 25 and 50%; and in 18 fields more than 50% of the squares were punctured. In Marshall County the infestations ranged from 11 to 76%, and in Tippah County from 44 to 92%. These records show heavy weevil populations and need for poisoning in the northern counties of the State. Much poisoning is being continued in the central and southern Delta Counties.

TENNESSEE: Forty-six fields were examined in 7 counties-- Franklin, Lincoln, Giles, Lawrence, Wayne, Hardin and McNairy-- along the southern border of the State adjacent to Alabama and Mississippi. In 6 fields no weevils were found; in 21 fields less than 10% of the squares were punctured; in 14 fields the infestations ranged between 10% and 20% punctured squares; in 4 fields between 25% and 50% of the squares were punctured; and in only 1 field (in McNairy County) were more than 50% of the squares punctured. McNairy County had the most boll weevils. In all of the 7 fields examined in that county the infestations exceeded 10% punctured squares, and in 4 of the fields the infestations were above 25%. In Hardin County all of the 7 fields examined had boll weevils, and in 5 of the fields more than 10% of the squares were punctured. Boll weevils were found in all of the 7 fields examined in Wayne County. County Agent L. J. Kerr reported very few boll weevils in Shelby County in the southwestern corner of the State.

ALABAMA: Twenty-one fields were examined in Colbert, Lauderdale and Limestone Counties in the northwestern corner of the State. Seven of the fields were free of weevils; 8 fields had less than 10% punctured squares; in 5 fields the infestations ranged between 10 and 25% punctured squares; and in only 1 field (in Colbert County) were more than 25% of the squares punctured.

GEORGIA: Practically all cotton within the State as far north as Atlanta has passed the boll weevil damaging stage. The crop is mature and a large percent of it is open. Reports from the extreme northwestern part of the State indicate that cotton is still fruiting heavily and is vulnerable to weevil attack. In the northeastern portion of the State the cotton has passed the peak fruiting stage and weevil infestation is increasing rapidly in many fields that have not been dusted. The average weevil infestation in 81 fields in 25 northern counties was 34%. Weevils were found in all fields examined. In 2 fields the infestation was less than 10%; in 28 fields it was from 10 to 20%; in 19 fields it was from 20 to 30%; in 7 fields it was from 30 to 40%; in 6 fields it was from 40 to 50%; and in 19 fields more than 50% of the squares were punctured.

SOUTH CAROLINA: Conditions have been favorable for the weevils. More than 4½ inches of rain fell at the Pee Dee Experiment Station at Florence during the week. Probably every cotton field in the State is now infested with boll weevils. Much of the cotton is now too mature for dusting to be profitable, but where there are green bolls to be protected, dusting with calcium arsenate will be profitable in increasing the yields of cotton.

NORTH CAROLINA: Rainy weather has been favorable for the weevils. Most of the cotton fields of the State are now heavily infested with boll weevils. Each field should be carefully examined and where there are many young bolls to be saved and the weevils are abundant, the yield of cotton can be increased by dusting with calcium arsenate -- two or three late dustings would yield good returns in some fields.

VIRGINIA: Dr. J. M. Grayson of the Agricultural Experiment Station, Holland, Virginia, examined 4 cotton fields within a radius of about 3 miles of the experiment station on August 24 and found that the weevil infestations have increased rapidly since the previous examination of these fields. He found 16%, 18%, 34%, and 40% of the squares punctured. F. C. Moore, County Agricultural Agent, Suffolk, Virginia, reported on August 24 in regard to the examination of 4 fields. One field was free of weevils and in the other 3 fields the infestations ranged from 2 to 5% punctured squares.

COTTON LEAFWORM

TEXAS: Leafworms are ragging cotton in many fields in McLennan and other central Texas counties. Ragging and defoliation of the plants are reported in Ellis, Hill and Dallas Counties. The worms are being controlled by the use of arsenicals in some fields, but in many instances no control measures are used.

OKLAHOMA: The cotton leafworm continues to cause damage in many southern and central counties of the State and should be controlled on late and rank-growing cotton. Worms are now present in small numbers in practically all cotton fields in Oklahoma.

LOUISIANA: Leafworms have stripped large acreages of cotton in central Louisiana where poisoning has been discontinued.

ARKANSAS: All of the principal cotton areas of the State are now infested with leafworms. Poisoning is general in the southeastern and throughout the Arkansas River areas. Some poisoning is now required in northeastern Arkansas.

MISSISSIPPI: Leafworms are now present in most fields in the northwestern part of the State. Worms were found in all fields examined in 5 Delta counties. Some poisoning in limited areas is being done for their control.

MISSOURI: George D. Jones, Extension Entomologist, reported on August 24 that cotton leafworm damage was very spotted and light, but that the situation might change fast, as the moths are now abundant. In addition to Butler and Scott Counties, previously reported infested, the leafworm has now reached Pemiscot County.

BOLLWORM

TEXAS: The bollworm situation continues critical in many central Texas counties. Square and boll counts show serious damage in many fields and in some practically 100% of the forms are damaged.

OKLAHOMA: First generation bollworms are pupating and moths are appearing in some fields. All young and succulent growth cotton should be watched closely for the second generation of worms and poisoning should be started as soon as the first worms hatch.

LOUISIANA: Bollworm damage continues serious in the northwestern part of the State.

ARKANSAS: Serious bollworm damage is reported in some fields in the southern part of the State.

MISSISSIPPI: Serious bollworm damage is reported in many fields in the Delta counties of the State. Many calls are being received concerning control measures. A large planting company in Coahoma County has dusted approximately 4,000 acres with DDT in sulfur for their control.

COTTON APHID

TEXAS: Aphid populations are being reduced in some fields by parasites and disease, while in others the infestations continue heavy. Many fields have failed to recover and set a new crop as a result of heavy aphid infestation.

ARIZONA: Aphid infestations in the Santa Cruz Valley have practically disappeared as a result of parasites and heavy blowing rains.

ARKANSAS: Heavy aphid infestation is reported in 46% of the fields in southeastern Arkansas. In 12% of the fields the infestation was medium; in 21% of the fields it was light; and in 21% of the fields no infestation was found.

INSECTS ON IRRIGATED COTTON IN THE SOUTHWEST

ARIZONA: Cotton continues to fruit heavily in the Salt River Valley and much dusting is still under way for plant bug and stinkbug control. Large quantities of Sabadilla, DDT, and paris green-sulfur mixtures have been used. Practically all cotton acreage in the Santa Cruz Valley has been poisoned for injurious hemipterous insects and bollworms, with satisfactory results. Stinkbugs continue to cause damage in the Safford Valley and the dusting program for their control is still in progress.

NEW MEXICO: Insect populations remain low in all principal cotton-growing areas.

TEXAS: Hemipterous insect populations declined and all poisoning programs for their control will be discontinued.

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August 28, 1946